UNIDO

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

FIRST CONSULTATION ON CONSULTING ENGINEERING SERVICES

Vienna, Austria, 4-7 July 1995

REPORT

Distr.
LIMITED

ID/397
(ID/WG.539/3)
20 September 1995

ENGLISH

Preface

The Industrial Cooperation and Consultations Service of the United Nations Industrial Development Organization (UNIDO) provides a means by which the Organization can promote contacts, discussions and agreements between developed and developing countries directed towards the industrialization of the latter countries. These contacts, discussions and agreements are arranged through Consultations on specific subsectors of industry. Participants in the Consultations include government officials as well as representatives of industry, labour, consumer groups and others with special emphasis on the involvement of industry-related institutions.

Benefits deriving from this activity include the monitoring of trends in world industry with a view to identifying the obstacles to industrial development in developing countries and proposing action-oriented measures for increasing their industrial output. This invariably leads to new forms of international industrial cooperation in North-South and South-South relations.

Since 1975, Consultations have been held on the following industries and topics: agricultural machinery, building materials, capital goods, construction, electronics, fertilizers, fisheries, food processing, industrial financing, iron and steel, leather and leather products, non-ferrous metals, petrochemicals, pharmaceuticals, small- and medium-scale enterprises, training of industrial manpower, vegetable oils and fats, and wood and wood products. The Consultations have brought together sectoral decision makers to deliberate on and propose concrete measures to accelerate the process of industrialization in developing countries. They have generated innovation, particularly with respect to technological alternatives, integrated development and contractual arrangements. The many opportunities thus provided have led to the implementation of projects in technical cooperation, investment promotion and technology transfer.

The Consultation process, by virtue of its consensual and normative character, has revealed itself to be an efficient vehicle for fostering cooperation. It is eminently suited to assist Member States in the formulation of policies and strategies for industrial development.

The Consultations are conducted under the continuous and close guidance of the Industrial Development Board of UNIDO. The programme of Consultations proposed by the Director-General of UNIDO for the biennium 1994-1995 and approved by the Board at its ninth session in May 1992 included a Consultation on Consulting Engineering Services.

Contents

		Paragraphs	Page
Preface			1
Introduction		1-8	4
Agreed conclusions and recommendations		9-14	6
Chapter			
I.	**Organization of the consultation**	15-27	12
II.	**Report of the plenary session**	28-66	16

Annexes

I.	List of participants	21
II.	List of documents	29

Introduction

1. The First Consultation on Consulting Engineering Services was held at Vienna from 4 to 7 July 1995. It was attended by 82 participants from 30 countries and 13 international and other organizations (see annex I).

Background

2. The strategic significance of consulting engineering services in industrialization and economic development in industrialized countries is increasingly recognized. Consulting engineering services can provide considerable support to firms in reaching or maintaining productivity, efficiency and competitiveness. Such services represent a source of significant knowledge and skills related to industrial and business issues.

3. Engineering consulting services form a multi-billion-dollar-a-year market that is dominated by large firms based in industrialized countries. The range of services required for a single investment project is often broad, demanding a knowledge of engineering, economics, finance and specialized technology. Larger, multidisciplinary firms have a clear advantage in providing such services.

4. In developing countries, the main actors in consulting engineering services are foreign firms. They play a critical role in shaping development by doing the following: providing feasibility studies; preparing tender documents; preparing studies on technology choice; advising on procurement; establishing operating standards; and constructing financial packages. There is, however, an emerging group of consulting engineering firms in several developing countries, in particular in eastern Asian and larger Latin American countries. Those firms are able to provide competitive services to other developing countries, and can succeed in their domestic market on the basis of fair and open competition with international firms.

5. Although the situation may vary from country to country, the consulting engineering profession is relatively new in the majority of developing countries. It is characterized by a lack of experience in many areas, including management and professional expertise. Such experience is necessary to guarantee that investment projects are successful. Increased participation by developing countries in the international consulting engineering market will enable them to improve their technical capabilities and management skills, thereby contributing to their development.

Preparatory activities

6. The Global Preparatory Meeting for the First Consultation on Consulting Engineering Services, held by UNIDO in cooperation with the International Trade Centre UNCTAD/GATT (ITC) at Geneva in June 1994, reached several conclusions and recommendations in which it emphasized the importance of strengthening national consultancy associations, exchanging of information through networking arrangements, and improving the technical cooperation projects being implemented in developing countries. The Global Preparatory Meeting identified priority issues to be addressed by the First Consultation and discussed ways and means of promoting active subregional, regional and international cooperation. Emphasis was placed on the importance of joint ventures, strategic alliances,

subcontracting and the effective transfer of the techniques and technology needed to overcome constraints to and provide opportunities for developing the domestic consulting industry. Other topics of discussion included the impact of the Uruguay Round of trade negotiations of the General Agreement on Tariffs and Trade (GATT) on consulting engineering services, the key objective of which was to strengthen the capacity of firms in the developing countries to provide domestic consultancy services. Consideration was also given to measures aimed at enhancing the commercial potential and increasing the foreign exchange earnings and local revenues of domestic consulting engineering firms.

Objectives

7. The main objectives of the First Consultation were twofold:

(a) To discuss and to specify instruments and strategies aimed at developing domestic consulting engineering services in order to ensure their sustained growth through concrete action-oriented recommendations addressing policy matters, management and financial aspects. Account was taken of the importance of international cooperation in developing regulatory requirements and support mechanisms for science, technology, engineering, environmental and bio-diversity protection and energy conservation, as well as for the development of human resources, marketing and trade;

(b) To promote contacts between participants with a view to strengthening technical cooperation in investment and the transfer of technology, specific project partnerships and subcontracting as well as export promotion in mutually beneficial areas of engineering and design services to help the growth of the consulting engineering industry in developing countries.

Issues

8. As a result of the in-depth discussions held at the Global Preparatory Meeting, the issue proposed for submission to the First Consultation was "Strategies and policies for the development of consulting engineering services in developing countries". Furthermore, it was considered that the issue should comprise the following sub-items:

(a) Constraints on the development of domestic consulting engineering services;

(b) Measures to overcome those constraints;

(c) International cooperation for the development of the consulting engineering industry in developing countries.

Agreed conclusions and recommendations

Conclusions

9. The Consultation agreed on the following conclusions:

(a) Consulting engineering services play a key role in industrial and economic development. They are the means by which project concepts are translated to industrial plants by the successive application of knowledge and skills. Thus, there is a need for a comprehensive strategy for the promotion and development of domestic consulting engineering services in developing countries. Such a strategy could include the development of national instruments aimed at the following: supporting legal and regulatory structures, human resource development and market intelligence; encouraging international, regional, national and local cooperation; and developing an institutional policy framework;

(b) Given the increasing demand for consulting engineering services in developing countries, official government recognition and the involvement of national consultants in development projects and privatization programmes are essential. To that end, and taking into account the knowledge of local conditions accumulated by national consultants, it is important to upgrade the skills of domestic consulting engineering firms in areas such as process engineering, systems engineering, information technology, operation and maintenance management;

(c) The strengthening of the domestic consulting engineering profession as a whole requires the development of an effective programme for restructuring the profession matched with a genuine commitment on the part of Governments to integrate domestic consulting engineering firms within the overall structural change underway in developing countries;

(d) Governments must take measures that complement the efforts of independent or national associations of consulting engineering firms as partners in a participatory process that can support and ensure the sustainable development and growth of these firms;

(e) The establishment of agencies to act as focal points such as national consulting engineering associations is required, *inter alia*:

(i) To collect data and maintain databases;

(ii) To formulate procedures for certification and accreditation, and to act as a regulatory body;

(iii) To promote a code of ethics;

(iv) To educate newcomers to adopt a professional approach in dealing with their assignments in a changing business environment;

(f) Financial assistance and liberal credit facilities should be provided by multilateral lending agencies and other financing institutions and existing constraints to and restrictions of the more extensive use of consulting engineering firms from developing countries should be reviewed;

(g) Joint ventures or consortia within and between countries are being set up to promote active industrial cooperation and to strengthen domestic consulting engineering capabilities in terms of the transfer of technology and training. Governments, together with national associations, should encourage the development of strategic alliances, subcontracting and other forms of partnerships;

(h) Increased cooperation between industrialized and developing countries as well as among developing countries themselves is needed in order to use the scarce resources such as finance and technical skills in a more productive way. The role of international organizations such as UNIDO and the International Trade Centre UNCTAD/GATT (ITC) in promoting cooperation in the development of the domestic consulting engineering industry is self-evident.

Recommendations

10. The consultation agreed that Governments should:

(a) Give preference to domestic consulting engineers when awarding contracts in the interest of the project;

(b) Ensure that no project is undertaken without the involvement of domestic consulting engineers in all phases. Such involvement might be in a consortium of regional consultants, in joint venture, as associates, or with a foreign consultant, and in all cases the project should be carried out in the country concerned;

(c) Examine projects in terms of their complexity and the investment and technology required with the aim of facilitating project execution by domestic consulting engineers as lead consultants for all projects, except those for which necessary technology is not locally available. For such cases, the level of participation of domestic consulting engineers with the lead foreign consultants must be an important evaluation criterion;

(d) Ensure that any financial assistance from international lending institutions or bilateral donors includes funds for on-the-job training for domestic consulting engineers. Performance evaluation should be carried out on completion of each project involving technology transfer;

(e) Facilitate the inflow of information on projects and programmes to domestic consulting engineers through established institutions, embassies and commercial representatives abroad;

(f) Facilitate the employment of domestic consulting engineers in all service sectors and involve national associations or other agencies to formulate procedures for providing certification and accreditation;

(g) Differentiate guidelines for procurement of services from those for the procurement of goods;

(h) Ensure that there is greater transparency in the preparation of terms of reference and in the short-listing and selection of consultants. In selecting consultants, the quality of their technical proposal should be the major consideration, but weight should also be given to the price factor;

(i) Ensure that there is improved access to the developed countries, particularly in the movement of personnel for rendering services and establishing business centres in the service sector in accordance with the provisions of the General Agreement on Trade in Services;

(j) Support domestic consulting engineering firms in their efforts to upgrade their skills, to acquire new skills, and to introduce quality systems conforming to ISO-9001 standards;

(k) Guide initiatives of small domestic consulting firms that wish to form consortia in bidding for larger projects;

(l) Develop a special national strategy that would help domestic consulting engineers to improve their capacity and to enhance their competitiveness in order to make them self-reliant in providing services that are acceptable in the international market;

(m) Ensure that domestic consulting engineers are properly remunerated and, where applicable, in the same currency as international consultants, and that there is no undue delay in releasing payments when they are due. The effect of inflation in the countries involved should be taken into account at the time of payment;

(n) Provide a start-up fund to set up business innovation centres and clinics for consultants in order to reach the small- and medium-scale industries that may not immediately appreciate the importance of quality management in economic growth and may not have adequate resources;

(o) Ensure that all government agencies and users of consultancy services follow the regulations and norms for improving growth and quality of services prepared by national associations or regulatory bodies.

National associations of consulting engineering services

11. The Consultation agreed that national associations of consulting engineering services should:

(a) Promote, develop and regulate domestic consulting engineering firms to create an environment that would allow greater interaction between consultants, users and Governments;

(b) Insist that their members supply quality services, observe their regulations and build relationships with clients;

(c) Identify and implement effective measures for the growth of domestic consulting engineering firms leading to the establishment of selected firms as centres of excellence;

(d) Conduct awareness programmes for users of consultancy services on the need for and usefulness of such services and organize training programmes for users on criteria to use in the selection of consultants. Users should be made aware of the importance of local language, laws, codes, practices and socio-economic conditions as well as political imperatives;

(e) Solicit the support of international organizations such as the United Nations Development Programme, the World Bank, UNIDO and ITC in promoting and enhancing their activities;

(f) Establish a database and information system for domestic consulting engineering firms. Such a database should facilitate the certification and accreditation of consultants as well as the exchange of information and integration with international networks;

(g) Monitor and ensure that domestic consulting engineers are involved in all projects undertaken in developing countries and that the terms of reference of all assignments make that involvement explicit;

(h) Act as regulatory bodies to enhance the quality of the profession through a code of ethics and work for maintaining high standards and integrity;

(i) Conduct training programmes for national consultants to overcome the gap between domestic and international practices in terms of technology, organization, management, finance, market information and marketing, and client communication;

(j) Assist in the creation of consortia of national or regional consultants;

(k) Encourage domestic consulting firms to acquire skills in emerging areas such as process engineering, systems engineering, information technology, operations and maintenance management;

(l) Assist domestic consulting engineering firms in obtaining seed capital or short-term financial facilities from lending institutions;

(m) Ensure the participation of domestic consulting engineering firms in projects that are financed by domestic financial institutions;

(n) Ensure that domestic consulting engineers continuously upgrade their skills, strengthen relations with users, donors and fellow members and support their national associations;

(o) Foster South-South cooperation between associations of consulting engineers in developing countries, promote the formation of bilateral joint ventures between consulting engineers in those countries and encourage the transfer of technology;

(p) Endeavour, on a continued basis and for the benefit of members, to get support and concessions from relevant government authorities for the export of services to other developing and developed countries;

(q) Establish one association of consulting engineers at the national level to act as a focal point in the country.

Regional and international bodies

12. The World Bank, UNIDO, the World Trade Organization, ITC and other international funding institutions should support domestic consulting engineering firms in the following: obtaining modern technology, including quality assurance systems; gaining access to updated managerial and technical training and know-how; and strengthening their research and development capabilities. It is proposed that regional centres of excellence should be identified and established.

13. To further promote domestic consulting developing firms in developing countries, UNIDO should:

(a) Maximize the use of national consultants in UNIDO sponsored projects and disseminate timely information on projects, including projects in the pipeline;

(b) Address developmental and technological requirements of the developing countries by carrying on dialogue with the multilateral funding agencies on the removal of existing constraints and restrictions to the more extensive use of domestic consulting engineers from developing countries;

(c) Request financial institutions and international agencies to extend assistance and credit facilities to national and regional programmes aimed at strengthening consulting capabilities in developing countries;

(d) Create and integrate, in cooperation with ITC, networking systems for the exchange of information between developing countries and between developing and developed countries;

(e) Act, in cooperation with ITC, as a catalyst to promote domestic consulting engineering services, where applicable, in the developed countries under the provisions of the General Agreement on Trade in Services, particularly in relation to the movement of personnel for rendering services and establishing business centres;

(f) Ensure, in cooperation with ITC, that the General Agreement on Trade in Services covers not only cross-border trade in services but also all means by which services could be traded;

(g) Support, in cooperation with ITC, the marketing efforts of domestic consulting engineering firms by providing assistance in the form of annual regional or national training workshops or seminars, appropriate marketing strategies and other promotional activities. As an immediate action, UNIDO should organize such workshops or seminars in Africa, Asia and the Pacific and Latin America regions in association with their respective regional engineering federations;

(h) Develop, in cooperation with ITC, an action plan and monitor its implementation on an annual basis at least and continue to organize periodic consultations at regional and global levels with the aim of developing this subsector further;

(i) Undertake, in cooperation with ITC, case-studies in countries where the Government has been supportive of consultancy services. If the results of such case-studies are encouraging, assistance could be extended by UNIDO to other developing countries for such supportive measures;

(j) Establish a panel of outside experts that would act as an advisory body for UNIDO activities in this subsector. The panel should be composed of 10 to 12 independent experts representing various disciplines and regions and selected on the basis of their demonstrated competence;

(k) Update and expand, in cooperation with ITC, its database on domestic consulting engineering services, including data on individual consultants. The updated information should be disseminated widely in order to assist developing countries in identifying and selecting appropriate professionals for rendering services in their countries;

(l) Work with existing regional and international bodies to assist the developing countries in introducing quality systems conforming to ISO-9001 standards and support collateral measures for the acquisition of new skills, both hardware and software;

(m) Encourage, support and facilitate, in cooperation with ITC, meaningful joint ventures between developed and developing countries that provide for the transfer of technology to domestic consulting engineers. UNIDO should make the participants in such joint ventures aware that such collaboration is of mutual interest to both parties in expanding the consultancy market and contributing to sustainable development;

(n) Continue to provide advisory and technical services to create an environment conducive to the development of the private sector and the participation of national consultants in enhanced privatization programmes.

14. The World Bank and other international lending institutions should:

(a) Consider the above recommendations when developing guidelines for the use and selection of consultants for Bank-funded projects;

(b) Evolve special measures and guidelines for upgrading the skills of consultants from least developed countries;

(c) Give preference, all things being equal, to domestic firms and firms from developing countries;

(d) Monitor pre- and post-contract relations between consultants and their clients and, wherever possible, take a regulatory role.

I. Organization of the consultation

A. Opening of the Consultation

Statement on behalf of the Director-General

15. In welcoming the participants on behalf of the Director-General of UNIDO, the Managing Director of the Human Resource, Enterprise and Private Sector Development Division underlined the pivotal role of consulting engineering services and their contribution to industrial and socio-economic development in developed and developing countries.

16. The Managing Director stressed the fact that although consultancy engineering services were recognized as a development resource in many developing countries, very few Governments had succeeded in using that resource effectively. He said that it was time to overcome the constraints inhibiting the orderly development and growth of the sector. He hoped that the Consultation would help to determine the most effective means by which the development of domestic consulting engineering services in developing countries could be assured. He put particular emphasis on the necessity for full cooperation between Governments and national associations of consulting engineering firms, intergovernmental bodies, international institutions, non-governmental organizations as well as users to achieve this objective.

Statement by the Officer-in-Charge of the Industrial Cooperation and Consultations Service

17. The Officer-in-Charge described briefly the Industrial Cooperation and Consultations Service, saying that the Service was to promote international business-oriented industrial cooperation between interested parties in developed and developing countries. Activities of the Service were implemented through sectoral Consultation meetings, industrial partnership arrangements and industrial cooperation among developing countries at the regional, interregional and global levels. He expressed the hope that the conclusions and recommendations of the Consultation would be based on a realistic assessment of current trends, problems and prospects in the sector. It was expected that the recommendations would be feasible and that they would help UNIDO, Governments and industry to introduce policy measures that would promote consulting engineering firms in developing countries.

Presentation of technical cooperation activities in the field of consulting engineering services

18. A representative of the Secretariat briefed the participants on UNIDO activities in the field of consulting engineering services. He said that their main objective was to provide assistance in areas where in-country expertise was missing or in short supply. He indicated that UNIDO offered expertise, training and support services such as a database, publications and equipment for demonstration or training purposes.

19. He stressed that the types of consulting engineering services provided by UNIDO depended on the type of project involved. He indicated, as an example, that services in enterprise restructuring could range from enterprise diagnostics through industry analysis and the gathering of market intelligence to the preparation of a restructuring plan and assistance in its implementation. In all

phases of project execution, consulting engineering services were used to assure the sustainable development and growth of the enterprise being restructured.

Statement by the representative of the International Trade Centre UNCTAD/GATT

20. The representative of ITC presented an overview of its technical cooperation activities in all aspects of trade development and export promotion in developing countries. He stated that ITC was to find a market for goods and services from developing countries in order to help them to enhance their foreign exchange earnings through increased exports.

21. He described the problems and constraints facing most developing countries in attempting to enter the international market for technical consultancy services. He indicated that some difficulties were related to a general lack of government support and recognition while others were related to ineffective export marketing management and inadequate trade information about potential business and markets. He recommended, therefore, national trade associations should be strengthened and that training institutions and Governments should create the necessary climate for domestic consulting engineering firms to grow.

22. Concerning the implications of the General Agreement on Trade in Services for developing countries, he said that it was the first time that GATT trade negotiations had included an agreement on trade in services and supplied an internationally acceptable definition of services. He pointed out that, as was specifically stipulated in the Agreement, the developing countries should benefit from the increased liberalization and enhanced market access embodied in the Agreement.

B. Election of officers

23. The following officers were elected:

Chairman:	Moeljadi Sasrasoebrata (Indonesia), Secretary-General, National Association of Indonesian Consultants (INKINDO)
Rapporteur:	Aloyse Peter Mushi (United Republic of Tanzania), Chairman, Tanzania Association of Consultants (TACO), Managing Director, CO-ARCHITECTURE Architects/Consulting Engineers/Planners
Vice-Chairmen:	Ahmed El-Nozahi (Egypt) General Director, Egyptian-Italian Engineering and Construction Joint Stock Company (EGITALEC), Representative, Ministry of Industry
	Joseph I. Folayan (Nigeria), President, Association of Consulting Engineers (ACEN)

C. Adoption of the agenda

The following agenda was adopted:

1. Opening of the Consultation.

2. Election of the Chairman, Vice-Chairmen and Rapporteur.

3. Adoption of the agenda and organization of work.

4. Presentation of UNIDO technical cooperation activities in the field of consulting engineering services.

5. Presentation of ITC technical cooperation programmes in the field of technical consultancy services.

6. Presentation by the UNIDO Secretariat of the issue and its sub-items:

   (a) National policies and promotional measures for the development of domestic consulting engineering services;

   (b) Strengthening of consulting engineering services;

   (c) Human resource development for specialized technical and managerial skills, management and market development;

   (d) Regional and international cooperation for the development of the consulting engineering industry.

7. General discussion of the issue.

8. Discussion on the development of an institutional policy framework for the consulting engineering profession.

9. Discussion on the promotion and identification of technical cooperation projects.

10. Adoption of the conclusions and recommendations of the Consultation.

D. Documentation

24. The documents issued prior to the Consultation are listed in annex II.

E. Adoption of the conclusions and recommendations

25. The conclusions and recommendations of the First Consultation on Consulting Engineering Services were adopted by consensus at the final plenary on 7 July 1995.

F. Concluding statements

26. At the closing plenary, the Officer-in-Charge of the Industrial Cooperation and Consultations Service expressed his deep appreciation to the participants for their highly professional contributions to the discussions. He appreciated the efforts of all those who had assisted in the First Consultation on Consulting Engineering Services and thus ensured its success. He then said that UNIDO would make all efforts to follow up the agreed recommendations and coordinate all offers of and requests for technical cooperation.

27. The Chairman of the Consultation, in his closing remarks, expressed his satisfaction at the climate of trust and open and frank discussions that had prevailed throughout the Consultation. He felt that the valuable results thus achieved would certainly help to promote and develop the consulting engineering industry in developing countries. He expressed his thanks to UNIDO for the fine preparation and assistance to make the Consultation a success.

II. Report of the plenary session

A. Presentation of the issues

28. A member of the UNIDO Secretariat, in introducing the issue of the development of consulting engineering services, stated that the enhancement and recognition of domestic technological capacity along with the continuous upgrading of the scientific and technological base were the predominant considerations in shaping international technical consultancy services in order to sustain a process of growth in developing countries aimed at greater global participation. He stressed, therefore, the need to strengthen the human resource base of developing countries to achieve rapid industrial and economic growth.

29. He noted that insufficient opportunities existed for domestic consulting engineers from developing countries to demonstrate and to improve their skills at home and in other developing countries.

30. He called upon the meeting to identify the constraints to and options for the integrated development of the sector and to make recommendations for the promotion and development of the consulting engineering industry in developing countries.

B. Summary of discussion

Policies and promotional measures for the development of domestic consulting engineering services

31. Many participants emphasized that official recognition and adoption by Governments of policies and strategies for involving domestic consulting engineering firms in development programmes and investment projects would be a step forward in the development of the domestic consulting engineering industry.

32. Several participants explained the status of consulting engineering services in their countries. It was noted that some had received official recognition by Governments in Asia and Latin America. In Africa, the majority of domestic consulting firms were continuing their efforts to secure official recognition and, more importantly, to have their services used in national development projects.

33. Some participants stated that coherent and coordinated action would be required by all parties concerned to exploit the full productive potential of the domestic consulting engineering industry. While an operational strategy must be country-specific, the key elements of a comprehensive strategy could be identified that would provide an overall framework for the formulation of a national strategy. Such a strategy should be based on the establishment of a policy that would create a climate in which two key conditions would prevail: (a) clients, including Governments would demand, value and promote quality and (b) Governments would provide the necessary support to domestic consulting engineering firms to produce quality work.

34. Recognizing the multidisciplinary nature of the services provided by engineering firms, several participants said that it would be expedient for professional societies to launch promotional

programmes to establish confidence among contractors and clients for the execution of investment projects. Such programmes would contribute to wider acceptance of domestic consulting engineering services and help shift the preference of Governments from foreign firms.

35. The question of procurement and selection procedures was raised. Some participants were of the opinion that price competition was damaging the consulting engineering sector from outside. In order to promote effective and adequate procurement policies, therefore, the selection of consultants should be based on technical merit. Others considered that price and not quality should be the overriding selection factor. Others observed that although price was an important factor in awarding contracts, it should not affect the quality and performance of industrial plants.

36. Several participants observed that lending agencies had a strong bias in favour of consultants from donor countries. In some cases, borrowing countries were virtually powerless in the selection of consultants, a situation that discouraged the development of domestic consulting engineering firms.

37. The representative of the World Bank said that one third of its investments were devoted to local consultancy services. He added that it was the Bank's policy to favour mandatory joint ventures and include domestic firms in the short list. Price was the primary selection factor.

38. One participant suggested that UNIDO and the World Bank should join efforts to provide developing countries with a data bank on consultants.

39. Another participant suggested that Governments, in consultation with national associations, should evolve systems for certification and accreditation of local consultants.

40. Concern was expressed about competition with foreign firms. It was noted that international competition emphasized experience and good references as overriding factors in the selection of national consultants. Most participants believed, however, that factors such as the knowledge of local conditions were an asset to be considered in awarding contracts.

41. One participant called for a continuous and structured dialogue between Governments, users and associations of professionals leading the consulting engineering industry. It would also help to establish criteria for consultants showing credibility to the clients of consulting engineering services. It was proposed that UNIDO should develop guidelines on factors to be considered in the selection of consultants or consulting firms.

42. Concern was expressed by a number of participants about the fluctuating nature of the workload in that profession. It was suggested that the situation could be redressed during lean periods by government-generated activities.

43. Joint ventures as a source of work opportunities should not be neglected. A number of participants noted that government intervention, encouragement and support by lending agencies would be effective ways to facilitate such cooperation, to foster technology transfer, to strengthen national capability and to enhance the bargaining power of locally owned engineering consulting firms. At the same time, support from the host Government was seen as essential in developing countries to create the proper environment for the development and growth of the domestic consulting engineering industry. A number of participants reported on successful experiences in South-South cooperation.

44. In the majority of developing countries, especially in the least developed countries, lack of exposure, shortage of experienced technical staff, weak information systems regarding consulting business opportunities and unfavourable government attitudes were barriers to the promotion,

development and growth of the domestic consulting engineering industry. Several participants emphasized the need to develop a comprehensive strategy and programmes for restructuring the consulting engineering profession, matched with a genuine commitment by Governments to integrate the consulting profession within the overall structural change underway in those countries. Also stressed were efforts aimed at reforming and strengthening supporting institutions, furthering the build-up of strong national consulting engineering associations able to defend the common interest of their members *vis-à-vis* Governments, promoting a code of ethics and educating newcomers on how to adopt a professional approach in a changing business environment.

45. A number of participants agreed that the issues, problems, opportunities and vision for the development and growth potential of domestic consulting engineering services highlighted during the discussion gave clear evidence of the importance of the Consultation. However, the view was expressed that a lack of political will-power as well as non-action or misdirected action in the industry constituted a risk that should not be underestimated. At the same time, however, it was important not to underestimate the opportunities for positive change.

Strengthening domestic consulting engineering services

46. The participants agreed on the definition of "domestic consulting engineering firm" as an independent firm in which nationals of the country in which it is located constitute a majority in share-holding and ownership, management and professional employment.

47. The prominent role of consulting engineering in industrial growth and socio-economic development was emphasized, as was the need for strengthening the capabilities of domestic consulting engineering firms.

48. It was pointed out that there was an urgent need to improve the quality of professional work and efficiency of the consulting engineering profession. It was suggested that consultations at the national, local and firm levels should be conducted on a continuing basis to create the necessary conditions for the consulting engineering industry to improve its access to physical resources, new techniques and technologies and to finance project execution. Such initiatives should reflect the needs and responsibilities of all actors of the industry, including the following: small, medium and large contractors and specialized subcontractors; national consulting engineering associations; financing institutions; public and private enterprises; and policy makers.

49. Most participants insisted that the consulting engineering profession needed to be organized. They recognized that the successful restructuring of the industry hinged on both government attitudes and support by international bodies such as the International Federation of Consulting Engineers (FIDIC). Two key elements of assistance were improved access to the national market and financial support from lending agencies. It was emphasized, however, that the primary responsibility for carrying out the task of restructuring the profession rested on national associations with the demonstrated support of Governments.

50. Strengthening national and regional consulting associations would make them viable interlocutors with Governments, thereby safeguarding the interests of domestic consulting firms and influencing government policies to support the development of the subsector. Such associations could also create awareness and develop training programmes, such as study tours, workshops and seminars, with a view to improving the organizational and managerial skills of their members.

51. The need for setting up effective institutional mechanisms such as national consulting development centres to provide delivery of a complete range of support services to stimulate the

growth of engineering consulting firms was also emphasized. The centres should be adequately equipped in terms of staff, office and computer facilities, and necessary support services. They should establish data banks and information systems and define ways to disseminate information to the firms. In that context, the representative of FIDIC stressed that domestic engineering consulting firms should diversify their activities, strengthen their capabilities and improve their infrastructure in order to accumulate more expertise and experience and to attract more contracts whenever possible.

52. A number of participants disclosed that national associations and their members should seek the best way to improve the quality of their services. They suggested that thematic or self-evaluation studies on the operations of firms should be carried out on a yearly basis. Such studies would be useful in pinpointing successes as well as failures so that other developing countries could benefit from similar experience by organizing seminars and workshops on best practices.

53. The important role of various national institutions and consultancy organizations (including those in the private sector) in providing a complete range of support services to small- and medium-scale industries needed to be strengthened wherever they existed to provide those industries with managerial and technological advice, including advice on training, marketing and sources of financing. The need for bilateral and multilateral assistance in that area, taking into account local economic and other conditions, was also highlighted.

Human resource development for technical and managerial skills, management and marketing know-how

54. While there was agreement on the fact that the development of engineering consulting firms was critically dependent on the availability of human capital, a number of participants observed that the technical training facilities available in most developing countries were limited. Concerted efforts focusing on both long- and short-term training programmes were needed, especially with regard to the following: project planning, design and appraisal; financial engineering packages and bidding strategy; and efficient and timely execution of investment projects.

55. The representative of FIDIC insisted that a heavy training component should be introduced and enforced by law in all industrial plant contracts awarded. He also suggested that the educational system in developing countries should be reviewed and that programmes for engineers should be amended, particularly in engineering design.

56. Several participants recognized that technical know-how, marketing and client communication skills were important assets for the development and growth of domestic engineering consulting firms. The need for human resource development through training programmes in various disciplines and at all levels of management was emphasized. A participant described the training facilities in his country and offered to make them available to representatives from other developing countries.

57. Some participants stated that UNIDO should design training programmes for government officials to convince them to support the development of domestic consulting engineering firms by showing the benefits accruing to the country by awarding contracts to national consultants.

58. Most participants stated that UNIDO should continue to provide technical cooperation services to upgrade the technical skills of personnel in consulting engineering firms in developing countries through available multilateral or bilateral funds.

International and regional cooperation

59. UNIDO was seen as having a vital catalytic role to play in the development of engineering consulting services as a source of both information and technical cooperation. It was suggested by some participants that UNIDO and the World Bank should make a joint effort to provide developing countries with a directory of consultants.

60. A number of participants expressed the view that the establishment of mutually beneficial partnerships between consulting engineering firms of various countries and regions was one of the most effective ways of helping the consulting engineering industry to grow, especially in the light of the outcome of the Uruguay Round of trade negotiations of GATT, which had resulted in agreements on the liberalization of trade in services.

61. The representative of ITC emphasized the importance of the General Agreement on Trade in Services, including technical consultancy services. He said that such services were strategically critical to trade and development prospects for all countries, particularly for developing countries. He suggested that developing countries would have to develop and strengthen their organizational and managerial skills, information technology, technological learning and marketing promotional activities. In that context, he indicated that one alternative towards the development of the industry would be to harmonize policies by sharing information among developing countries on their respective technological capabilities and investment programmes and projects as well as by making joint arrangements for project financing. He also suggested that both importing and exporting countries could tap the existing vast potential of South-South cooperation to benefit from their complementarities.

62. There was general agreement that with regard to the promotion, development and growth of domestic consulting engineering services, joint initiatives were required in such important areas as capacity-building, the transfer of technology, total quality management, engineering design, software design and networking arrangements for the exchange of information. UNIDO and ITC were requested to continue to offer technical cooperation services in this regard.

63. The representative of FIDIC stated that, with regard to procurement procedures, the international lending agencies should make their policies conform to their practices.

64. It was proposed that a panel of experts should be established under the aegis of UNIDO in cooperation with WTO and ITC in order to advise on issues related to the development and strengthening of consulting engineering services in developing countries on a continuing basis.

65. Since the consulting engineering industry was still at an embryonic stage in some developing countries, particularly in the least developed countries, a vast potential existed for North-South and South-South cooperation. The development and strengthening of national capacity in the subsector would enhance such a process and foster the development and transfer of technology appropriate to the conditions and needs of each developing country. It would also help to create a favourable environment to attract foreign investments and other forms of international cooperation such as joint ventures, subcontracting etc.

66. A representative of the UNIDO Secretariat gave a brief description of UNIDO activities in the field of consulting engineering, particularly the services offered to assist the privatization of industrial plants in developing countries and industrial conglomerates in eastern European countries.

Annex I

LIST OF PARTICIPANTS

Austria

Hannes Posch, Member of the Board, Verband Beratender Ingenieure Österreichs (VBIÖ), Karlsgasse 9, A-1040 Vienna (Telephone: 431-5055807; Telefax: 431-5053211)

Heimo Zimmermann, Umweltmanagement Verfahrenstechnik, Praterstrasse 40/20, A-1020 Vienna (Telephone: 431-2149520; Telefax: 431-214952020)

Bangladesh

Mujibur Rahman Khan, General Secretary, Bangladesh Association of Consulting Engineers (BACE), 137, Jahanara Garden, Green Road, Dhaka 1205 (Telephone: 8802-317452; Telefax: 8802-813110)

Bosnia and Herzegovina

Tatjana Ljujic-Mijatovic, Ambassador, Permanent Representative, Permanent Mission of the Republic of Bosnia and Herzegovina to UNIDO, Nussdorferstrasse 20/1/16, A-1090 Vienna, Austria

Malik Skaljic, Counsellor, Alternate Permanent Representative, Permanent Mission of the Republic of Bosnia and Herzegovina to UNIDO, Nussdorferstrasse 20/1/16, A-1090 Vienna, Austria

Denmark

Erik Kristensen, Managing Director, Danish Council of Consulting Architects and Engineers, Esplanaden 34, DK-1263 Copenhagen (Telephone: 45-33143620; Telex: 16421 cefri dk; Telefax: 45-33911137)

Egypt

Nagib Abd El Hadi, Special Consultant, Arab-Swiss Engineering Company (ASEC), P.O. Box 26, New Maadi 11742, Cairo (Telephone: 202-3520716; Telefax: 202-3521101)

Cesare d'Ippolito, Managing Director, Egyptian-Italian Engineering and Construction Joint Stock Company (EGITALEC), 143, Omar Ibn El-Khattab St., Almaza-Heliopolis, 11341 Cairo (Telephone: 202-2900189 or 202-2901285; Telex: 92927 egit un; Telefax: 202-2903553 or 202-4173186)

Ahmed El-Nozahi, General Director, Egyptian-Italian Engineering and Construction Joint Stock Company (EGITALEC), Representative, Ministry of Industry, 143, Omar Ibn El-Khattab St., Almaza-Heliopolis, 11341 Cairo (Telephone: 202-2900189 or 202-2901285; Telex: 92927 egit un; Telefax: 202-2903553 or 202-4173186)

Hassan El-Shafie, Chairman, Misr Consulting Engineers, 71 B Saquara Road, Giza (Telephone: 202-3850882 or 202-3851462; Telefax: 202-3852197)

Suzanne B. Metwalli, General Manager, Business Development Unit, Arab Contractors Osman A. Osman and Company, 120 Mohi El Din Abu Elezz Street, Doki, Cairo (Telephone: 202-3370173; Telefax: 202-3603557)

France

Alain Brigodiot, Président, SYNTEC-Conseil, 3 rue Léon Bonnat, 75016 Paris (Téléphone: 33-144304920; Télécopie: 33-142882684)

Alain Brun, Chargé de Division ingénierie, Ministère de l'industrie, 3-5 rue Barbet de Jouy, 75007 Paris (Téléphone: 33-143194254; Télécopie: 33-143194369)

Germany

Wolfgang Buch, Counsellor, Alternate Permanent Representative, Permanent Mission of Germany to UNIDO, Wagramerstrasse 14, A-1220 Vienna, Austria

Hartmut Krebs, Adviser, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, P.O. Box 5180, D-65726 Eschborn (Telephone: 496196-791735; Telefax: 496196-797113)

Klaus Rollenhagen, General Director, Verband Beratender Ingenieure e.V., Am Fronhof 10, D-53177 Bonn

Hungary

József Ehn, President, Association of Hungarian Consulting Engineers and Architects, Managing Director, VIZ-INTER Ltd. Consulting Engineers, Eszek u. 9-11, 1114 Budapest (Telephone and telefax: 361-3710245 or 361-3710246)

India

Surya Prakash Agarwal, Director, Department of Scientific and Industrial Research, Ministry of Science and Technology, Technology Bhavan, New Mehrauli Road, New Delhi 110016 (Telephone: 9111-662260 or 9111-667373; Telex: 66096 or 61805 dst in; Telefax: 9111 6960629)

Indonesia

Soekrisno Sabar, Senior Official, Ministry of Public Works, Jalan Pattimura No. 20, Kebayoran Baru, Jakarata Selatan 12110 (Telephone: 6221-7394912; Telex: 47254 or 47257; Telefax: 6221-7396771)

Sutojo Martohardjono, Vice-Chairman, National Association of Indonesian Consultants (INKINDO), Jalan Bendungan Hilir Raya 29, Jakarta 10210 (Telephone: 6221-5738577 or 6221-5738578; Telefax: 6221-5733474)

Moeljadi Sasrasoebrata, Secretary-General, National Association of Indonesian Consultants (INKINDO), Jalan Bendungan Hilir Raya 29, Jakarta 10210 (Telephone: 6221-5738577 or 6221-5738578; Telefax: 6221-5733474)

Hinu Endro Sayono, Chief, Business Development Division, Ministry of Public Works, Jalan Pattimura No. 20, Kebayoran Baru, Jakarta Selatan 12110 (Telephone: 6221-7394912; Telex: 47254 or 47257; Telefax: 6221-7396771)

Coddy Soerono, Manager, Corporate Planning and Control Division, PT Rekayasa Industri (Department of Industry), Jalan Kalibata Timur I/36, Jakarta 12740 (Telephone: 6221-7988700 or 7988707; Telex: 66171 rekind ia; Telefax: 6221-7988701)

Tony Sulistyo, Division Manager, PT Rekayasa Industri (Department of Industry), Jalan Kalibata Timur I/36, Jakarta 12740 (Telephone: 6221-7988700 or 7988707; Telex: 66171 rekind ia; Telefax: 6221-7988701)

Hidayat Suwandi, Industrial Attaché, Alternate Permanent Representative, Permanent Mission of the Republic of Indonesia to UNIDO, Gustav Tschermak-Gasse 5-7, A-1180 Vienna, Austria

Iran (Islamic Republic of)

Behnam Nazmi-Ansari, Vice-President, Engineering Department, Ghods Niroo Consulting Engineering Company, 98 Motahari Ave., Tehran 15664 (Telephone: 9821-843515 or 9821-843447 or 9821-846267; Telex: 215259 or 22407 or 334507 gnce ir; Cable address: Sherghodsniroo iran; telefax: 9821-851704)

Amir Samadijavan, Manager, Public Relations, Iran Cement Engineering Centre (ICEC), No. 78, Ziba Street, Ghoba Street, Dr. Shariati Avenue, Tehran (Telephone: 9821-2551657 or 9821-2551158; Telex: 9821-2552700)

Iraq

Malik Nahi Hausin, Director-General, Specialized Institute for Engineering Industries (SIEI), Ministry of Industry, P.O. Box 5798, Baghdad (Telephone: 9641-5543244 or 9641-5548564; Telex: 213580 mahad ik)

Morocco

Jamal Eddine El Jamali, Directeur des études et de la planification, Ministère du commerce, de l'industrie et de l'artisanat, Rabat

Nigeria

Michael Olusegun Adesina, Nigerian Association of Chambers of Commerce and Industry/Association of Consulting Engineers (ACEN), P.O. Box 6450, Lagos (Telephone: 2341-963641 or 2341-963681)

Olusegun Doherty, Chairman, Consultancy Committee, Nigerian Society of Chemical Engineers (Telephone: 2341-967098; Telefax: 2341-4970301), Member, Association of Consulting Engineers (ACEN), 100 Oregun Road, Ikeja, Lagos (Telephone: 2341-963641 or 2341-963681)

Joseph I. Folayan, President, Association of Consulting Engineers (ACEN), P.O. Box 6450, Lagos (Telephone: 2341-963641 or 2341-963681)

J. Olukayode Sonuga, Association of Consulting Engineers (ACEN), P.O. Box 6450, Lagos (Telephone: 2341-963641 or 2341-963681)

Babajide Akinremi Soyode, President, B. A. Soyode Company Ltd., 1, Oju Olobun Close, Victoria Island, P.O. Box 3993, Shomolu, Lagos (Telephone: 2341-2623151; Telefax: 2341-2614229)

Pakistan

Zaheer Mirza, Chairman/CEO, Engineering Consultants International (Pvt.) Ltd. (Telephone: 9221-430225-7 or 9221-435567; Telex: 25228 zaher pk; Telefax: 9221-4545255), President Association of Consulting Engineers Pakistan (ACEP), 29, Block 7/8, DCHS, Sharae Faisal, Karachi 75350

Peru

Octavio Chirinos, Presidente, Consejo Nacional Superior de Consultoria (CONASUCO), Avenida Central 671, Piso 10, San Isidro, Lima (Telephone: 5114-422550; Telex: 21515 pe; Telefax: 5114-422805)

Carlos Guillermo Elias Strohmeier, Director, Consejo Nacional Superior de Consultoria (CONASUCO), Avenida Central 671, Piso 10, San Isidro, Lima (Telephone: 5114-422550; Telex: 21515 pe; Telefax: 5114-422805)

Poland

Adam Gasiorowski, Managing Director, Mechanical Works "LENA" Ltd., 59-500 Zlotorvja

Bogdan Goniakowski, Senior Specialist, BIPROSTAL S.A. Consulting Engineering Company, ul. Królewska 57, 30-081 Krakow (Telephone: 4812-371866 or 4812-371332; Telex: 0322416 pl; Telefax: 4812-376301 or 4812-371330)

Pawel Jarczewski, Senior Assistant to the Export Project Manager, PROZAP Engineering Ltd., Aleja Tysiaclecia 13, 24-110 Pulawy (Telephone and telefax: 4881-863825; Telex: 642721 pl)

Jacek Libicki, President and Managing Director, Poltegor Engineering Ltd., ul. Powstancow Slaskich 95, 53-332 Wroclaw (Telephone: 4871-605131; Telex: 0712491 opg pl; Telefax: 4871-616611 or 4871-616711)

Andrzej Majkowski, Head, Export and Marketing Division, Poltegor Engineering Ltd., ul. Powstancow Slaskich 95, 53-332 Wroclaw (Telephone: 4871-605131; Telex: 0712491 opg pl; Telefax: 4871-616611 or 4871-616711)

Romania

Gabriela Cosug, Project Manager, Institute for Non-ferrous and Rare Metals (IMNR), 6, Pitar Mos Street, Bucharest 1 (Telephone: 401-2119490; Telex: 11614; Telefax: 401-2110147)

Cecilia-Magda Dan, Technical Consultant, SINPREST S.A., Splaiul Independentei Nr. 202 A, Sector 6, Bucharest (Telephone: 401-3123591 or 401-6372160 or 401-6375107; Telefax: 401-3123591)

Andreea Milea, Process Engineer, Institute for Non-ferrous and Rare Metals (IMNR), 6, Pitar Mos Street, Bucharest 1 (Telephone: 401-2119490; Telex: 11614; Telefax: 401-2110147)

Marius Scrab, Economic Manager, Institute for Non-ferrous and Rare Metals (IMNR), 6, Pitar Mos Street, Bucharest 1 (Telephone: 401-2119490; Telex: 11614; Telefax: 401-2110147)

Elisabeta Vraciu, Technical Consultant, SINPREST S.A., Splaiul Independentei Nr. 202 A, Sector 6, Bucharest (Telephone: 401-3123591 or 401-6372160 or 401-6375107; Telefax: 401-3123591)

Rwanda

Louise Mujijima, Directeur de la Réhabilitation et de la construction, Ministère de la réhabilitation et de l'intégration sociale, B.P. 2034, Kigali (Téléphone: 250-73549 ou 250-76189; Télécopie: 250-72338)

Saudi Arabia

Ali H. K. Ahmad, Director, International Division, Saudi Consulting Services (SAUDCONSULT), P.O. Box 2341, Riyadh 11451 (Telephone: 9661-4659975; Telex: 401231 shawaf sj; Telex: 9661-4647540)

Ahmed Al-Abdulkarim, General Manager, East Consulting Engineering Centre (ECEC), P.O. Box 1973, Riyadh 11441 (Telephone: 9661-4772215 or 9661-4761442; Telefax: 9661-4777145)

Abdul Hamid Mohammed Alawadi, General Manager of Engineering, Ministry of Industry and Electricity, Saudi Consulting House, P.O. Box 1267, Riyadh 11431 (Telephone: 9661-4489157; Telefax: 9661-4481234)

Spain

Santiago E. Pérez Rodríguez, Jefe, Servicio de Información y Transferencia Tecnológica, Ministerio de Industria y Energía, Paseo de la Castellana 160, 28071 Madrid (Teléfono: 341-3494044; Telefax: 341-4578066 ó 341-4582019)

Sudan

Ahmed Hamid Ahmed, Deputy Director, Industrial Research and Consultancy Centre, P.O. Box 268, Khartoum (Telephone: 24911-613753; Telex: 26008 irci sd)

Thailand

Sakul Hovanotayan, Associate Dean, Faculty of Engineering, King Mongkut's Institute of Technology Ladkarabang (KMITL), Bangkok 10520 (Telephone: 662-3266052, Ext. 442 or 508; Telefax: 662-3269965)

Pasu Loharjun, Head, Research Section, Ministry of Industry, Soi Trimitr, Rama 4 Road, Bangkok 10110 (Telephone: 662-3811051; Telefax: 662-3811812)

Togo

Itchi Gnon Ayindo, Directeur, B.F. Conseil, B.P. 20121, Lomé (Téléphone et télécopie: 228-259531)

Kpakpassi Don'Djah Worou, Chef, Division des opérations de privatisation, Ministère de l'industrie et des sociétés d'Etat, B.P. 2748, Lomé (Téléphone: 228-210744 ou 228-212004 ou 228-223572; Télécopie: 228-214305)

Tunisia

Walid Bel Hadj Amor, Vice-President, Association nationale des bureaux d'études et des ingénieurs-conseils (ANBEIC), 28 Avenue Habib Bourguiba, 1001 Tunis

Mohamed Gharbi, Directeur général, Centre national d'etudes agricoles (CNEA), 30 Rue Alain Savary, 1002 Tunis Belvedere (Téléphone: 2161-285561; Télécopie: 2161-793237)

Mohamed Fadhel Handous, Sous-Directeur, Centre technique des matériaux de construction, céramique et verre (CTMCCV), Route de Lacagna, El Ouardia, 1009 Tunis (Téléphone: 2161-392300; Télécopie: 2161-392460)

Turkey

Müfit Akyos, Manager, Small and Medium Industry Development Organization (KOSGEB-MKEK), Binasi, 9. Kat Tandogan, Ankara (Telephone: 90312-2128190; Telefax: 90312-2122508)

Fatma Coiasan, Vice-President, Association of Turkish Consulting Engineers and Architects (ATCEA), Partner, ODTM Middle East Technical Consult. Inc., Cemal Nadir Sok. 4/1, Cankaya, 06680 Ankara (Telephone: 90312-4461588 or 90312-4408970; Telefax: 90312-4374971 or 90312-4408972)

Yücel Erdem, Member of the Board, Erer-Consulting, Engineering and Contracting Company, Cemil Topuzlu Cad, Is Bankasi Bloklari D Blok No. 4, 81030 Fenerbahçe-Istanbul (Telephone: 90216-3690220 or 90216-3690221 or 90216-3593914; Telefax: 90216-3857361)

Yalçin Tezcan, Chairman of the Board, Seyas Sey Consulting Engineers, Architects and Planners Inc., Ergenekon Cad 100/111, Terikoy 80260, Istanbul (Telephone: 90216-2330920; Telex: 26866 smm tr; Telefax: 90216-2330936)

Uganda

Herbert W. Iga, Chief Consulting Engineer, Industrial Management Business Consultants Ltd., P.O. Box 11496, Kampala (Telephone and telefax: 25641-250425)

Abdu Kagga, Executive Chairman, Kagga and Partners Ltd., P.O. Box 6583, Kampala (Telephone: 25641-233537; Telefax: 25641-233538)

United Republic of Tanzania

Aloyse Peter Mushi, Chairman, Tanzania Association of Consultants (TACO), Managing Director, CO-ARCHITECTURE Architects/Consulting Engineers/Planners, P.O. Box 4668, Dar-es-Salaam (Telephone: 25551-38694 or 25551-35152; Telex: 41843; Telefax: 25551-44615)

United States of America

Richard G. Weingardt, President, American Consulting Engineers Council (ACEC), 1015 Fifteenth Street N.W., Washington D.C. 20005 (Telephone: 1202-3477474;Telefax: 1202-8980068)

Zambia

Jowitt I. Kaluwa, Senior Partner, Brian Colquhoun, Hugh O'Donnell and Partners, P.O. Box 31943, Lusaka (Telephone: 2601-228458/61; Telex: 42630 za; Telefax: 2601-220829)

United Nations Secretariat

Economic Commission for Africa

Mamadi Kourouma, Industrial Development Officer, Industry and Human Settlements Division, P.O. Box 3001, Addis Ababa, Ethiopia (Telephone: 2511-517200; Telefax: 2511-514416)

Specialized agencies and other organizations of the United Nations system

United Nations Educational, Scientific and Cultural Organization

Massoud Abtahi, Liaison Officer, UNESCO Liaison Office at Vienna, P.O. Box 1100, A-1400 Vienna, Austria

World Bank

Jean-Louis Ginnsz, Consulting Services Adviser, Procurement Policy and Coordination Unit, 1818 H Street N.W., Washington D.C. 20433, United States of America (Telephone: 202-4584103 or 1202-4771234; Telex: rca 248423; Telefax: 1202-3340003 or 1202-4776391)

International Telecommunication Union

Nurgün Akyüzalp, Head, Telecommunications Strategies and Programming Division, Telecommunications Development Bureau, Place des Nations, CH-1211 Geneva 20, Switzerland (Telephone: 4122-7305902; Telex: 421000 uit ch; Telefax: 4122-7305484)

International Trade Centre UNCTAD/GATT

Peter J. H. Slessor, Project Coordinator, Technical Consultancy Services, Division of Product and Market Development, 54-56 rue de Montbrillant, CH-1211 Geneva, Switzerland (Telephone: 4122-7300517; or 4122-7300111; Telex: 414119 itc ch; Telefax: 4122-7334439)

Other intergovernmental organizations

Gulf Cooperation Council

Ali Mohammed Al-Rasheed, Director, Department for Industry, Electricity and Technology, P.O. Box 7153, Riyadh 11462, Saudi Arabia (Telephone: 9661-4827777, Ext. 1539; Telex: 405050; Telefax: 9661-4827716)

Junta del Acuerdo de Cartagena

Jaime Córdoba Zuloaga, Miembro, Casilla Postal 18-1177, Lima 18, Perú (Teléfono: 5114-2212222; Télex: 20104 o 21107 junacpc; Telefax: 5114-4209111)

Non-governmental organizations

International Confederation of Free Trade Unions

Kurt Prokop, Consultant, Rugierstrasse 12/30, A-1220 Vienna, Austria

International Federation of Business and Professional Women

Bärbel Chambalu, Permanent Representative, Enzersdorferstrasse 50, A-2340 Mödling, Austria

World Assembly of Small and Medium Enterprises

Christian Zimmermann, Hyrtlstrasse 6, A-2340 Mödling, Austria

Other organizations

European Federation of Engineering Consultancy Associations

Soren Knudsen, Secretary-General, Avenue de Cortenbergh 79, Box 7, B-1040 Brussels, Belgium (Telephone: 322-7324990; Telefax: 322-7325126)

Federation of African Consultants

Abdoul-Gadiry Balde, Secretary-General, P.O. Box V 269, Abidjan, Cote d'Ivoire (Telephone: 225-204094 ou 225-204444; Telefax: 225-205396)

International Federation of Consulting Engineers

Gamal Nassar, Member of the Executive Committee, 7, Lebanon Street, Mohandesseen, Giza, Cairo, Egypt (Telephone and telefax: 202-3461062)

Annex II

LIST OF DOCUMENTS

Discussion document

Strategies and policies for the development of consulting engineering services in developing countries	ID/WG.539/1

Background documents

Global study on consulting engineering services	ID/WG.593/2
Report of the Global Preparatory Meeting for the First Consultation on Consulting Engineering Services	IPD.9(SPEC.)

Information papers

The GATT Uruguay Round negotiations: Implications for consulting engineering services	No. 1
Use of local contractors and consultants	No. 2
Internationalization of consulting and engineering design services: Implications for developing countries	No. 3
Development of consulting engineering services in Sub-Saharan Africa	No. 4
Position papers by the International Federation of Consulting Engineers (FIDIC)	No. 5
Consulting engineering services in Bangladesh	No. 6
Consulting engineering services in India: Development, issues and problems	No. 7
Development of local consulting engineers in Indonesia	No. 8
Consulting engineering services in Malaysia	No. 9
Strategies and policies for the development of consulting engineering services in developing countries: Egyptian view	No. 10
The consulting engineering industry: The Nigerian experience	No. 11
Consulting engineering services in the developing countries: The African region	No. 12
How to overcome the imbalance of opportunities between consultants in developing countries and consultants in developed countries: The role of the International Trade Centre UNCTAD/GATT (ITC)	No. 13

ID/397
(ID/WG.539/3)